State Auditor's Office

John Keel, CPA
State Auditor

An Audit Report on

The Voter Registration System at the Texas Secretary of State's Office

November 2007
Report No. 08-012

PX 101

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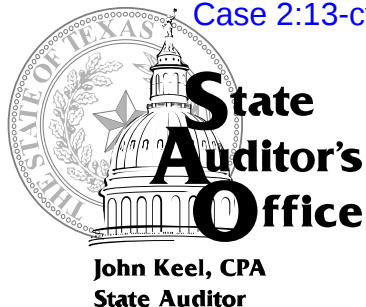SAO Report No. 08-012
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Overall Conclusion

The Texas Secretary of State's Office should improve its processes and controls to ensure that records in the Texas Election Administration Management (TEAM) system are accurate in accordance with the Help America Vote Act of 2002 (HAVA). Voter registration is an important element of the electoral process that presents many challenges. Ensuring that only eligible persons are registered to vote is an ongoing challenge that involves the Secretary of State's Office, 254 county voter registration offices, the Department of Public Safety, and the Bureau of Vital Statistics. Although the Secretary of State's Office has processes to identify many ineligible voters and remove them from the State's voter registration list, improvements can be made.

Auditors compared data in the TEAM system to data obtained from the Department of Criminal Justice and the Bureau of Vital Statistics using criteria developed by the Secretary of State's Office. As a result, auditors identified 49,049 (0.4 percent) of 12,374,114 registered voters for the May 12, 2007, special election who may have been ineligible to vote. These included the following:

> Voter records for 23,114 possible felons.

> Records for 23,576 voters who may be deceased.

> Duplicate records for 2,359 voters.

Background Information

The Help America Vote Act (HAVA) was passed by the U.S. Congress in 2002 in response to issues stemming from the 2000 presidential election. HAVA requires states to establish and maintain a uniform, centralized, interactive, and computerized statewide voter registration list.

To comply with HAVA, the Texas Secretary of State's Office contracted with IBM on October 22, 2004, to develop the Texas Election Administration Management (TEAM) system. The TEAM system includes multiple components. Specifically:

- Voter registration.
- Election management (ongoing).
- Jury duty (ongoing).

The TEAM system includes a voter registration database that serves as the official statewide voter registration list required by HAVA. The TEAM system also serves as an interface for county voter registration offices for entering, updating, and deleting voter information. The TEAM system uses Hart InterCivic's eRegistry application, as well as IBM's WebSphere and Tivoli eBusiness products.

The Secretary of State's Office expects to spend $15.5 million on the implementation of the TEAM system; it reported spending $12.6 million on the TEAM system project as of August 31, 2007. Ninety-five percent of the funding for the project was provided by the U.S. Election Assistance Commission and 5 percent was provided by state funds.

This audit was conducted in accordance with Texas Government Code, Section 321.0132.

For more information regarding this report, please contact Michael Apperley, Assistant State Auditor, or John Keel, State Auditor, at (512) 936-9500.

Auditors did not identify any instances in which potentially ineligible voters actually voted during the May 12, 2007, special election, although voting history data in the TEAM system was incomplete.

The Secretary of State's Office does not retain a complete history of death and felon records that were reported during previous periods. This limits its ability to identify ineligible voters who may not have been previously removed, convicted felons who try to register multiple times, or applicants who use a deceased person's information to register to vote. In addition, the Secretary of State's Office does not require counties to investigate and remove voter registration records that match felon or deceased records on a periodic basis. As a result, voter registration records identified by the Secretary of State's Office as potentially ineligible may remain active indefinitely.

The Secretary of State's Office has implemented certain access and security controls over the TEAM system; however, the Secretary of State's Office needs to implement additional controls to ensure that it adequately protects voter registration information and the TEAM system from unauthorized access. Auditors did not identify any breaches of security or disclosures of confidential voter registration data, but they did identify weaknesses that the Secretary of State's Office should address to ensure that the TEAM system is adequately protected. Specifically:

➢ The Secretary of State's Office does not have a process to ensure that user accounts are authorized by appropriate personnel, including administrative accounts that allow access to and control of confidential information within the TEAM system. The Secretary of State's Office also does not have the appropriate tools necessary to adequately monitor TEAM user activity.

➢ The Secretary of State's Office has not reviewed existing accounts for validity, nor does it have a process to do so in the future. As a result, it could not confirm whether county or contractor users were actual employees. This increases the risk of unauthorized access.

➢ Weaknesses within data backup and change management procedures increase the risk that the Secretary of State's Office would be unable to promptly and fully recover from a disaster. In addition, specific weaknesses within application and database security increase the risk that TEAM data is not adequately protected.

Tests performed by a contractor (IBM) on behalf of the Secretary of State's Office, as well as statements by county voter registration officials, indicate that although the TEAM system is available to users, its stability and response time can be improved. In addition, 106 (52 percent) of 204 county voter registration offices said that the TEAM system does not allow them to perform their jobs effectively.

For 6 (60 percent) of 10 benchmarks required by the Secretary of State's Office's contract for the development of the TEAM system, the TEAM system was slower

than the system used previously by the Secretary of State's Office—the Texas Voter Registration System (TVRS). However, the Secretary of State's Office has made numerous changes to the TEAM system to enhance its performance. Foremost among these changes is an ongoing performance test that the Secretary of State's Office conducted during the week of August 6, 2007. According to the Secretary of State's Office, this test used an automated tool to simulate the voter registration activity that the TEAM system is likely to experience during the 2008 presidential election. (The TEAM system is expected to see the highest volume of activity during presidential elections.) According to the Secretary of State's Office, it plans to use the results of this test to make further improvements to the TEAM system's performance. Auditors did not verify the results of this performance test.

Auditors also identified less significant issues that were communicated separately to the Secretary of State's Office.

Summary of Management's Response

The Secretary of State's Office generally agrees with each of the three recommendations offered in this report.

First, the Secretary of State's Office agrees that current processes within TEAM should be re-assessed to determine if there are better ways to identify potentially ineligible voters. However, while it is important to purge the system of ineligible voters, it is equally important to ensure that valid and eligible voters are not removed. Accordingly, any changes that the Secretary of State's Office pursues with respect to removing names from the TEAM system will and must be implemented after a careful consideration of these important factors. Also, any changes that are made in how Texas conducts its electoral process will be subject to the U.S. Department of Justice's pre-clearance requirements, and therefore any new policies that are adopted must take this process into consideration.

Second, the Secretary of State's Office agrees that the performance of the TEAM system can be improved, and that significant steps have been taken by the Secretary of State's Office to make sure that improvements have been made. Indeed, the marked differences that the Secretary of State's Office and the counties experienced between the May 2007 and November 2007 elections is significant evidence of the progress that has been made in this regard.

Finally, the Secretary of State's Office agrees that it should strengthen its procedures to ensure that TEAM is further protected from either an external or an internal threat. The Secretary of State's Office believes that TEAM's current risk of exposure is relatively low. However, when the security of this information is at issue, improvements such as the ones suggested can and will be made.

Summary of Objectives, Scope, and Methodology

The objectives of this audit were to:

➢ Determine whether the records in the statewide voter registration database are accurate in accordance with HAVA.

➢ Assess whether the statewide voter registration system will be available when needed.

➢ Determine whether the Web-based statewide voter registration system is protected from unauthorized access.

The scope of this audit included the voter registration component of the TEAM system and the processes and controls at the Secretary of State's office and county voter registration offices, which coordinated with each other to generate a list of voters who were eligible to vote during the May 12, 2007, special election.

The audit methodology included interviewing Secretary of State's Office personnel; interviewing staff at 11 selected county voter registration offices; reviewing Secretary of State's Office documentation; analyzing TEAM system data and configurations; testing voter registration records; reviewing processes, policies, and procedures for determining voter eligibility; conducting security scans of the Secretary of State's Office network; and surveying 254 county voter registration offices regarding the use of the TEAM system as of August 3, 2007.

Contents

Detailed Results

Chapter 1
The TEAM System Includes Potentially Inaccurate Voter Information

The Secretary of State's Office should improve its processes and controls to ensure that records in the Texas Election Administration Management (TEAM) system are accurate and that only eligible voters are able to vote in state and federal elections. The Secretary of State's Office has implemented processes to identify and remove records that are duplicate or belong to ineligible voters, but these processes do not identify all duplicate or ineligible voter records. Specifically, of 12,374,114 records in the TEAM system of registered voters who were able to vote in the May 12, 2007, special election, auditors identified 49,049 (0.4 percent) records as potential duplicates or belonging to potentially ineligible voters.

In Texas, constituents are not allowed to vote if they do not meet certain requirements. The Texas Election Code provides a detailed description of eligible voters (see text box for voter eligibility requirements). In addition, Section 303.4 of the Help America Vote Act of 2002 (HAVA) requires each state to maintain an accurate and regularly updated voter registration system, as well as make a reasonable effort to remove registrants who are ineligible to vote from this system.

The actual number of inaccurate voter records may be more than the 49,049 identified by auditors because complete information was not available in the TEAM system to verify the eligibility of all registered voters. Specifically, the following information was not available that would have allowed auditors to complete additional eligibility analysis in accordance with state and federal statute:

> **Texas Voter Registration Eligibility Requirements**
>
> Texas Election Code, Section 13.001, states:
>
> (a) To be eligible for registration as a voter in this state, a person must:
>
>   (1) Be 18 years of age or older;
>
>   (2) Be a U.S. citizen;
>
>   (3) Not have been determined mentally incompetent by a final judgment of a court;
>
>   (4) Not have been finally convicted of a felony or, if so convicted, must have been:
>
>   (i) Fully discharged of his or her sentence, including any term of incarceration, parole, or supervision, or completed a period of probation ordered by any court; or
>
>   (ii) Been pardoned or otherwise released from the resulting disability to vote; and
>
>   (5) Be a resident of the county in which application for registration is made.
>
> (b) To be eligible to apply for registration, a person must, on the date that the registration application is submitted to the county voter registration office, be at least 17 years and 10 months of age and satisfy the requirements of Subsection (a), except for age.

- United States citizenship status.

- Persons convicted of federal felonies.

- Voter identification information for records that lack a Social Security number, a Texas driver's license number, or both.

Auditors did not identify any instances in which potentially ineligible voters cast a ballot during the May 12, 2007, special election; although voting history data maintained in the TEAM system was incomplete, and the relatively low 7 percent voter turnout for this election reported by the Secretary of State's Office may limit the applicability of auditors' testing to other elections. The

State Auditor's Office provided copies of all records of potentially ineligible voters and duplicate voter information identified in this audit to the Secretary of State's Office for investigation and resolution.

Chapter 1-A
The Secretary of State's Office Could Identify and Remove More Ineligible Voters from TEAM

The TEAM system included the following voter registration records for the May 12, 2007, special election that auditors identified as belonging to people who were potentially ineligible to vote:

- Records for 23,114 voters identified as possible felons using data provided by the Department of Criminal Justice. The data identified felons on community supervision as of April 30, 2007, and felons who were incarcerated or on parole as of May 31, 2007. The Secretary of State's Office identified 1,124 (4.9 percent) of these possible felons prior to the election, but it was not able to complete its investigations to verify the registrants' felon status and remove them from the TEAM system before the election.

- Records for 23,576 voters believed to be deceased because these records matched death records through November 30, 2006, obtained from the Bureau of Vital Statistics. The Secretary of State's Office identified three of these records prior to the election, but it was not able to complete its investigations to verify that these voters were deceased and remove them from the TEAM system before the election. It should be noted that the number of potentially deceased voters auditors identified may be understated because the data obtained from the Bureau of Vital Statistics did not include death notices for the six months prior to the May 12, 2007, special election.

The Secretary of State's Office could not identify all the potentially ineligible voters in the TEAM system that auditors found because the Secretary of State's Office does not receive the most complete death records or felon data available. The Secretary of State's Office receives daily felony data updates from the Department of Public Safety; however, this data does not include felons who were listed on earlier reports and are still serving a sentence. Similarly, the Secretary of State's Office receives weekly updates of death records from the Bureau of Vital Statistics, but this data does not include deaths from earlier reporting periods.

The Secretary of State's Office does not retain a comprehensive history of either the felon data or death records it receives. As a result, once the Secretary of State's Office processes the felon and death records in the TEAM system, it cannot ensure that ineligible voters remain off the voter registration list. For example, a convicted felon could try to register to vote at a later date, and the TEAM system would not flag the record as potentially ineligible.

Alternately, if the Secretary of State's Office mistakenly does not process one of the felon data or death record files it receives, there would be no additional opportunities for it to identify the resulting ineligible voter.

> ### Secretary of State's Office's Matching Criteria
>
> The Secretary of State's Office has defined the data that must be similar to identify voters as potentially ineligible or duplicate. The strongest of these criteria are:
>
> - First name, last name (or former last name), and Social Security number.
> - First name, last name (or former last name), and Texas driver's license number.
> - First name, last name (or former last name), date of birth, and last four digits of Social Security number.
>
> The TEAM system will cancel a record that matches death records or that is identified as a duplicate record using one of these methods. If the TEAM system matches felon data using one of these criteria, the voter record is flagged for further investigation by county voter registration offices.
>
> The Secretary of State's Office also uses other criteria to identify voters who are potentially ineligible and flags these records for further investigation by county voter registration offices.

The TEAM system identifies ineligible voters by processing the daily or weekly updates of felon and deceased data. Felon records that match voter records according to the Secretary of State's Office's criteria are flagged for further investigation by county voter registration offices (see text box for criteria). However, each update of felon data or death records is processed only once in the TEAM system immediately after the data is received. As a result, the TEAM system is not able to identify potentially ineligible voters who register after the Secretary of State's Office has processed the felon or deceased data containing their names or who attempt to register multiple times. For example, after the Secretary of State's Office has processed its felon data, a felon on probation who is deemed ineligible to vote could register to vote again without being flagged as a felon in the TEAM system.

County voter registration offices are ultimately responsible for determining voter eligibility, which limits the Secretary of State's Office's ability to ensure that voter registration records are accurate and that ineligible voters are removed, as required by HAVA.

The Secretary of State's Office does not monitor county voter registration offices that investigate potentially ineligible voters.

Once potentially ineligible voters are identified by the TEAM system, the Secretary of State's Office does not have processes to ensure that county voter registration offices investigate these voters and cancel registrations for ineligible voters in a timely manner. The Secretary of State's Office's policies and Texas Election Code require county voter registration offices to investigate each voter and to cancel the registrations of voters who are deemed ineligible. However, the Secretary of State's Office does not monitor the county voter registration offices to ensure that the registrations of potentially ineligible voters are consistently investigated and resolved. The Secretary of State's Office's management stated that some county voter registration offices cause delays because they do not promptly investigate and resolve the registrations of potentially ineligible voters. As a result, a risk exists that voters flagged by the TEAM system as potentially ineligible could retain the ability to vote if county voter registration offices do not verify their eligibility.

However, the TEAM system does not always provide county voter registration offices with details of ineligible voter records that are flagged for

review. For example, one county voter registration office auditors visited received a summary report from the Secretary of State's Office stating that there were 21 outstanding flagged voter records. However, the accompanying detailed report listed information for only three of the flagged records.

Auditors visited 11 county voter registration offices and identified weaknesses within several critical processes and controls that could limit the Secretary of State's Office's ability to ensure that all registered voters are eligible to vote. Specifically:

- One county voter registration office employee, when duplicate records are found, deletes the most recent record. This does not follow the Secretary of State's Office's procedures, which require counties to delete the oldest duplicate record. Deleting the most recent record deletes a voter's most recent address, which is more likely to be accurate.

- Employees at the same county voter registration office discussed above do not cancel the registration of voters who are convicted of felonies and receive a sentence of 90 days or less for violating state laws.

- Another county voter registration office initially entered the same erroneous date of registration (January 1, 2006) for 84 percent of its voter records in the TEAM system. This limits the Secretary of State's Office's ability to track voter activity prior to this date.

- Auditors also noted many instances in which inaccurate data was entered into the TEAM system by other county voter registration offices, including invalid Social Security numbers and dates of birth.

Recommendations

The Secretary of State's Office should:

- Periodically review the entire list of registered voters in the TEAM system to identify potentially ineligible voters for further investigation.

- Coordinate with the Department of Public Safety and the Bureau of Vital Statistics to obtain more complete data records, and it should retain a comprehensive history of all the data used to verify voter eligibility.

- Continuously look for additional sources of information that the TEAM system could use to identify inaccurate voter information and potentially ineligible voters. The Secretary of State's Office should determine whether the benefits outweigh the costs in its decision to utilize new information.

Management's Response

Management agrees with these recommendations, and the Secretary of State's Office (the "Office" or the "SOS") will continue to review the TEAM system periodically for potentially ineligible voters. The Office recognizes that it may not be receiving the most up-to-date or complete set of information that either the Texas Department of Public Safety or the Texas Bureau of Vital Statistics could provide. Accordingly, the Secretary of State's Office will work with these two agencies and explore whether more recent, more comprehensive or more useful information is or could be made available to the Office so that it might be better able to identify voters who may be deceased, convicted of a felony or otherwise ineligible to vote. The Office will also determine whether there are other state or federal agencies from which it could solicit information to further assist the Office in these efforts.

However, despite the fact that management agrees with these recommendations, there are three caveats to these recommendations that are worth discussing. First, under current law the Office is almost entirely dependent upon the Texas Department of Public Safety and the Texas Bureau of Vital Statistics for much of the data it receives on felons and deceased voters. Similarly, because state law provides that the counties are ultimately responsible for determining voter eligibility, the Office is also almost entirely dependent upon them for the content entered into and removed from TEAM. Therefore, it is possible that legislation may be necessary for the Office to accomplish these important goals. If this proves to be the case, then the Office will work with the Legislature if the Legislature elects to address these issues through legislation.

The second caveat is that while it is important to make sure that ineligible voters are promptly removed from the TEAM system, it is also equally important to make sure that eligible voters are not. Any changes that are implemented by the Office will necessarily then take both of these important factors into consideration.

Lastly, issues related to voting and the election process in the State of Texas are subject to Section 5 of the federal Voting Rights Act of 1965. Accordingly, any changes to the current process of identifying, investigating or canceling ineligible voters must be submitted for, and will be subject to, "pre-clearance" by the U.S. Department of Justice. This "pre-clearance" must be obtained before any such changes can take effect or be implemented in this State.

Chapter 1-B
The Secretary of State's Office Does Not Have Adequate Processes to Ensure All Duplicate Voter Records in the TEAM System Are Identified and Removed

Auditors identified 2,359 registered voters (less than 0.1 percent of the 12,374,114 total registered voters in the state) with more than one voter record in the TEAM system who may have been able to cast multiple ballots during the May 12, 2007, special election. These duplications were a result of an error in the TEAM system's software during implementation, which prevented the program from removing some duplicates.

HAVA requires state and local election officials to perform maintenance on the voter registration list on a regular basis, including the removal of duplicate records from the list.

The Secretary of State's Office's process for identifying and deleting duplicate voter records is integrated into the voter application process in the TEAM system. This automated process compares voter records to identify those with similar data, and it automatically deactivates duplicate voter records that match according to the strongest criteria. Specifically, TEAM will deactivate voter records that have the same:

- First name, last name (or former last name), and Social Security number.

- First name, last name (or former last name), and Texas driver's license number.

- First name, last name (or former last name), date of birth, and last four digits of Social Security number.

Auditors tested records for 30 voters having duplicate records in the TEAM system, none of whom cast more than a single vote during the May 12, 2007, special election. But auditors could not conclude with certainty that voters with duplicate records did not cast multiple ballots in this election because the voting history maintained in the TEAM system is incomplete. Also, the relatively low 7 percent voter turnout for this election may limit the applicability of auditors' testing to other elections.

The Secretary of State's Office is not able to identify duplicate registrations if an individual registers to vote using a Social Security number, and then registers to vote at a later date using a driver's license number. A risk exists that voters who advertently or inadvertently registered twice could illegally vote more than once in the same election. However, auditors did not identify any instances of a voter casting more than one ballot in the May 12, 2007, special election.

Recommendation

The Secretary of State's Office should periodically review the entire list of registered voters in the TEAM system to identify and cancel duplicate records.

Management's Response

Management agrees with these recommendations. The existence of 2,359 voters with more than one record within TEAM was caused by a defect that was found within the TEAM system. The defect has been identified and fixed. The duplications created by the defect have been identified and a process is being developed to resolve them. In addition, the Office will review its existing matching criteria and seek to improve its existing processes to prevent duplicate registration by individuals who may (either advertently or inadvertently) seek to register at different times and with different pieces of identifying information (e.g. with a Texas driver's license at one point and then a social security number later).

Chapter 1-C
Certain Eligibility Information Is Not Available

Auditors were not able to obtain certain information needed to verify voter eligibility in accordance with state and federal statutes. Specifically, the following information could not be obtained:

Citizenship Requirements in State and Federal Voting Statutes

Texas Election Code, Section 11.002 (2), states that a "qualified voter" means, among multiple requirements, a person who is a U.S. citizen.

The National Voter Registration Act [Title 42, United States Code, Section 1973gg (a)] states that the right of U.S. citizens to vote is a fundamental right. Additionally, the National Voter Registration Act requires voter registration agencies to distribute each voter registration application with a statement that lists each voter eligibility requirement, including U.S. citizenship.

- Citizenship status. Auditors could not find an authoritative source of information to verify the citizenship status of registered voters. Auditors contacted the U.S. Social Security Administration to obtain the citizenship status of registered voters in Texas; however, the U.S. Social Security Administration replied that it could not disclose personally identifiable information and that it may not have current data on citizenship in all cases (see Appendix 2 for a copy of the U.S. Social Security Administration's response). Auditors were also not able to obtain the citizenship information of registered voters from other sources. State and federal statutes require that voters be U.S. citizens to vote in state and federal elections (see textbox for additional information on citizenship requirements).

- Federal felony conviction data. The Secretary of State's Office receives some federal felony conviction data, but it does not receive this data in an electronic format. As a result, it cannot consistently identify people who are ineligible to vote because they have been convicted of a federal felony.

The National Voter Registration Act[1] requires United States Attorneys to provide state election officials with federal felony conviction data. According to General Accountability Office reports,[2] however, United States Attorneys have not been consistent in providing states with information on felony convictions.

Because data on citizenship and federal felonies is not available, a risk exists that some ineligible voters who cannot be identified may retain the ability to vote. However, two controls exist to help deter voters from submitting false information on citizenship status and identify those who do:

- Applicants must provide a signed acknowledgement of eligibility requirements on the voter registration application (see Appendix 3 for a copy of the Texas Voter Registration Application). Among the eligibility requirements listed on this form is confirmation that the applicant is a U.S. citizen and is not currently serving punishment for a felony. This application also requires the voter to acknowledge that perjury is a crime under state and federal law and is punishable by imprisonment of up to 180 days and a fine of up to $2,000.

- Texas Election Code, Section 16.0332, requires county voter registration offices to review the documentation received from courts listing the individuals who were excused or disqualified from jury duty because they are not U.S. citizens. County voter registration offices are instructed to request proof of citizenship from individuals on the list and cancel any voter registration records for any individuals who do not respond to the requests for proof of citizenship within 30 days. However, the Secretary of State's Office does not monitor the county voter registration offices to ensure that they are consistently canceling voter registration records when ineligible individuals are identified.

These measures help the Secretary of State's Office (1) deter voter registration applicants from knowingly submitting false information and (2) identify some ineligible voters who were selected for jury duty. But neither of these controls is adequate to ensure that citizenship status is accurately reported by voter applicants. It is important to note that neither a Texas driver's license number nor a Social Security number can be relied upon to determine citizenship status because both forms of identification are issued to non-U.S. citizens. In addition, the Texas Election Code[3] allows individuals who affirm on their voter registration application that they do not have either a Social Security

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[1] Title 42, United States Code, Section 1973gg-6 (g).

[2] See *Elections: Additional Data Could Help State and Local Elections Officials Maintain Accurate Voter Registration Lists*, General Accountability Office Report No. 05-478, June 2005; and *Elections: The Nation's Evolving Election System as Reflected in the November 2004 General Election*, General Accountability Office Report No. 06-450, June 2006.

[3] Texas Election Code, Sections 13.002(c) and 63.0101.

number or Texas driver's license number to register to vote using documents such as a current utility bill, bank statement, government check, paycheck, or other government document containing the name and address of the applicant.

Recommendations

The Secretary of State's Office should:

▪ Pursue additional information that can help verify the eligibility of voter applicants.

▪ Pursue additional information and implement processes that can help identify and eliminate duplicate voter records.

▪ Coordinate directly with the United States Attorneys (as opposed to the Department of Public Safety) to obtain data for federal felony convictions to use for verification of voter eligibility.

Management's Response

Management agrees with these recommendations. As discussed in more detail above (see Management's Response to Recommendations in Chapters 1-A and 1-B), the Secretary of State's Office will review and evaluate whether other state or federal agencies may have information that is accessible and that would further assist the Office in identifying voters who may not be eligible to vote in Texas. The Office will also further refine its processes and procedures to help identify and eliminate duplicate voter records.

Furthermore, the Office will investigate ways to improve its relationship and avenues of communication with the U.S. Attorneys so that it might have better access to federal felony conviction information.

Finally, as the State Auditor's Report points out, information pertaining to the citizenship status of registered voters or applicants for voter registration is currently unavailable. However, this information may become more available over time as the federal REAL ID Act is implemented, and the Office will work to incorporate any information that becomes available as a result of this federal legislation into TEAM.

Chapter 2
The Secretary of State's Office Can Improve the Performance of the TEAM System

The TEAM system provides the Secretary of State's Office and county voter registration offices electronic access to voter records and was available during the May 12, 2007, special election. However, TEAM system users indicate that they are not satisfied with the system's performance. In addition, benchmark tests performed by a subcontractor on behalf of the Secretary of State's Office, as well as statements made by county election officials and observations by auditors, indicate that the TEAM system's performance can be improved.

The Secretary of State's Office is aware of the risk of inadequate performance, and it has undertaken multiple initiatives to improve the TEAM system's performance. Most recently, the Secretary of State's Office performed a performance test during the week of August 6, 2007. The test, in which county voter registration offices participated, included a simulation of the heavy workload that county voter registration offices are expected to experience prior to the 2008 presidential election. Auditors were unable to verify the results of the performance test because the Secretary of State's Office had not completed its analysis prior to the end of audit fieldwork. Secretary of State's Office management said the performance test results will be used to prioritize the issues that need to be addressed to improve the TEAM system's performance in the future.

The TEAM system is designed to allow county and state election officials to maintain voter registration records, administer elections in all jurisdictions, and execute and report election results. The Secretary of State's Office plans to add an election management component and a public voter inquiry Web site by January 2009. All 254 Texas counties are using the TEAM system. Of these, the Secretary of State's Office reports that 224 counties (88 percent) used the TEAM system as their primary voter registration system as of May 2007. When residents in one of these 224 counties register to vote, their information is entered and stored directly in the TEAM system. The other 30 counties maintain their own voter registration databases and upload new registration records and changes to the TEAM system every 24 hours for verification. Among these 30 counties are Harris, Dallas, Bexar, Travis, Collin, and El Paso. (See Appendix 4 for a complete list of counties that maintain their own voter registration databases.) After the Secretary of State's Office verifies the records from these 30 counties, it downloads an updated list of registered voters from the TEAM system to each county. HAVA requires that each state have a single, official list of registered voters.

Availability Requirements in the Help America Vote Act (HAVA)

The Help America Vote Act requires each state to implement a computerized voter registration list capable of allowing any election official, including local election officials, to obtain immediate electronic access to the information contained in the computerized list. The chief state election official in any state must also provide local election officials with the support necessary to allow the local election officials to electronically enter, on an expedited basis, all voter registration information into the computerized list at the time the registration information is provided to the local election officials.

Therefore, the list downloaded from the TEAM system is the official list of voters and is the only list that counties can use in federal elections.

Chapter 2-A

The TEAM System Is Not Meeting Contract Performance Benchmarks

Tests that a Secretary of State's Office contractor conducted on December 6, 2006, and December 7, 2006, revealed that the TEAM system did not meet contract performance benchmarks on 6 (60 percent) of 10 tests conducted. The contract between the Secretary of State's Office and TEAM application developers—IBM and Hart InterCivic—requires the TEAM system to perform at least as quickly and provide substantially similar functionality as the system it replaced–the Texas Voter Registration System (TVRS).

IBM conducted tests of both the TEAM system and TVRS. These 10 tests measured the amount of time it took each system to perform each of 7 activities (multiple search methods were tested). The activities selected for the tests were included in the contract and were among the functions most frequently used by county voter registration offices. The TEAM system did not perform as quickly as TVRS on 4 (50 percent) of 8 tests of performing transactions and on 2 (100 percent) of 2 tests of producing reports (see Table 1). Since the tests were completed, the Secretary of State's Office has initiated various initiatives to improve the TEAM system's performance (see Chapter 2-C for details).

Table 1

TEAM and TVRS Performance in Benchmark Tests (Time in seconds)					
	Average Time Taken to Complete Test		Difference in Time to Complete Test	Percentage Change in Time to Complete Test	
Benchmark Tested	TEAM	TVRS			Type of Test
Add a voter	9.17	7.45	1.72	23.09%	Transaction
Cancel a voter	4.79	0.87	3.92	450.57%	Transaction
Change a voter	4.17	5.07	-0.90	-17.75%	Transaction
Search by name only	47.73	48.21	-0.48	-1.00%	Transaction
Search by voter ID	2.39	0.50	1.89	378.00%	Transaction
Search on voter name and date of birth	2.56	4.44	-1.88	-42.34%	Transaction
Search by address only	2.94	7.56	-4.62	-61.11%	Transaction
Search by driver's license number	2.16	0.20	1.96	980.00%	Transaction
Produce an official voting list	6,686.00	312.00	6,374.00	2,042.95%	Report
Produce a list of registered voters	4,284.00	169.00	4,115.00	2,434.91%	Report

Source: *TEAM Performance Benchmark Results,* IBM, December 19, 2006.

However, the Secretary of State's Office told auditors that these benchmarks are not the most relevant measures of the TEAM system's performance because TEAM differs from TVRS in architecture, technology, and features. For example, the TEAM system provides real-time access to information on registered voters. It performs real-time comparisons (live checks) between registration data submitted by a county voter registration office and data from the Department of Public Safety, the Bureau of Vital Statistics, and the U.S. Social Security Administration. In contrast, TVRS used batches to periodically update voter information. As a result, voter information in TVRS was not always current.

Auditors identified county equipment issues that may contribute to poor TEAM system performance.

The Secretary of State's Office has not determined the types of equipment used by counties to connect to the TEAM system as of May 2007 and, therefore, cannot determine whether performance problems are related to inadequate county equipment, such as slow dial-up modems.

These equipment issues could negatively affect county users' ability to access the TEAM system and limit the system's ability to meet contract benchmarks.

The Secretary of State's Office did not maintain historical data on the TEAM system's performance.

The Secretary of State's Office used multiple tools to monitor the TEAM system's performance. However, these tools tracked and maintained only average system performance data and did not maintain detailed historical monitoring data. The Secretary of State's Office implemented a tool to track and collect historical data prior to the performance test conducted during the week of August 6, 2007. Because the Secretary of State's Office did not implement this tool earlier, it did not have sufficient performance data to determine the specific causes for poor TEAM system performance and whether the system was complying with both the availability requirements in HAVA and the performance requirements in the system's development contract.

Recommendations

The Secretary of State's Office should:

- Ensure that the TEAM system meets or exceeds contractual benchmarks.

- Identify the equipment used by counties to access the TEAM system and help counties make any improvements necessary to improve the system's performance.

- ▪ Maintain and use historical data on the TEAM system's performance to help determine causes of poor performance.

Management's Response

Management agrees with these recommendations, and has already implemented each of these suggestions. The Office of the Secretary of State readily acknowledges that TEAM's performance was unacceptable during the first six months of deployment. As a result of this dissatisfaction, the Office and its vendors worked aggressively over the summer of 2007 to improve and stabilize the performance of the TEAM system. Changes were made to TEAM and these changes were tested in a structured, high-load validation/performance test that was conducted in early August. During this validation/performance test, the contractual benchmarks were also retested and each retested benchmark actually exceeded the contractual standards. (See Attachment A, which is affixed to this Audit Report as Appendix 6). This high-load performance/validation test also identified additional areas that have since been improved as well as areas that still need improvement. Action is currently underway to implement these findings and further improve the functionality and performance of TEAM.

With respect to the equipment used by the counties, in July 2007 Secretary of State Phil Wilson personally requested that each county in Texas be contacted to ensure that it was using equipment that met or exceeded the minimum required specifications for TEAM. The results of these contacts were compiled and analyzed by the Office, and federal money was made available to each county in Texas that needed it to replace or upgrade equipment that was below TEAM's minimum requirements. For example, the Office identified several counties that were using dial-up (and therefore slower) Internet connections and paid for them to upgrade to DSL, cable or similar (and faster) Internet providers so that they could see faster response times when interacting with TEAM.

Finally, the Office has obtained and implemented tracking tools that are better than the ones used earlier in the TEAM project so that the Office can more precisely identify where and when slow downs are occurring within TEAM. These tools were not in place during the first six months of deployment.

Chapter 2-B
Survey Results Indicate Users Are Not Satisfied with the TEAM System's Performance

Auditors conducted a survey of all 254 county voter registration offices in Texas and received responses from 209 offices (see Appendix 5 for a

complete list of survey results). Of these, 142 (68 percent) of the 208 counties that responded to the question, "How often is the TEAM system available when you need to access the system?" indicated that the TEAM system was not always available when needed. Also, 106 (52 percent) of the 204 offices that responded to the question, "In general, does the TEAM system allow you to do your job effectively?" answered "No." Survey responses also confirmed the results of the IBM benchmark tests that were discussed in Chapter 2-A. For example:

- 102 (56 percent) of 183 offices that responded to the question, "How quickly can you download a registered voter roll from the TEAM system?" said it took an hour or more to download a registered voter roll from the TEAM system; 37 (20 percent) offices said it took more than a day to download a registered voter roll.

- 103 (57 percent) of 182 offices that responded to the question, "How quickly, on average, can the TEAM system generate a report?" said it took the TEAM system an hour or more to generate a report; 27 (15 percent) offices said it took the TEAM system more than a day to generate a report.

- 139 (76 percent) of 183 offices that responded to the question, "How quickly, on average, can the TEAM system process an online voter registration?" said it took a minute or more, on average, for the TEAM system to process an online voter registration; 11 (6 percent) offices said it took more than 10 minutes for the TEAM system to process an online voter registration.

- 120 (62 percent) of 194 offices that responded to the question, "How quickly, on average, can the TEAM system process a search for a voter?" said it took the TEAM system a minute or more to process a search for a voter's record.

In addition to conducting the survey, auditors visited 11 county voter registration offices. During these visits, users of the TEAM system expressed concerns about the system's performance that were similar to concerns identified in survey responses.

Recommendations

The Secretary of State's Office should continue to improve the TEAM system's performance and follow up with county voter registration offices to ensure that the system allows users to do their jobs effectively.

Management's Response

Management agrees with these recommendations and with the counties that TEAM's performance during the first six month's of its deployment was simply unacceptable. As indicated above (see Management's Response to Recommendations from Chapter 2-A), the Office's dissatisfaction and frustration with TEAM led to the dedication of significant time and attention by agency personnel, which in turn led to significant changes in and to the TEAM system. The Office believes that the dedication of these staff resources and the changes that resulted from them have led to a system that is now stable and one that is performing at levels that are much closer to what was initially expected. The Office believes that the absence of widespread issues or complaints during and in the months leading up to the November 2007 election, especially when compared to those received by the Office in the months preceding the May 2007 election, speak directly to this issue and the progress that has been made in this regard.

Chapter 2-C
The Secretary of State's Office Has Multiple Performance Improvement Initiatives Underway for the TEAM System

The Secretary of State's Office's management recognizes that the TEAM system should be improved, and it is in the process of implementing changes to enhance the TEAM system's performance. For example, the Secretary of State's Office has completed the following initiatives since the TEAM system was implemented in January 2007:

- Upgraded hardware on servers running the TEAM system, including adding memory.

- Installed updates to the eRegistry software application, which is the foundation of the TEAM system.

- Modified settings in the TEAM system database that stores voter registration data.

In addition to these initiatives, one of the contractors developing the TEAM system (Hart InterCivic) hired a consultant to review the design and architecture of the eRegistry application. This consultant identified a number of problems with the TEAM system's configuration that the Secretary of State's Office and Hart InterCivic are working to address. For example, the consultant determined that the TEAM system's reporting application (Cognos) is incompatible with Adobe Systems Portable Document Format (PDF) report formatting requirements, hindering the production of reports in the TEAM system.

Among the Secretary of State's Office's largest ongoing initiatives is the use of the results of the August 2007 performance test as a guide for making further improvements to the TEAM system. The Secretary of State's Office and IBM conducted the test from August 6, 2007, to August 12, 2007 (after auditors finished reviewing the system's performance). According to the Secretary of State's Office, this test used an automated tool to simulate the voter registration activity that the TEAM system is likely to experience prior to the November 2008 presidential election. (The TEAM system is expected to experience the highest usage volume prior to presidential elections.) According to the Secretary of State's Office, it plans to use the results of this performance test to make further improvements to the TEAM system's performance. Auditors did not verify the results of this performance test.

Also, the Secretary of State's Office said it had set aside about $2.1 million to help Texas counties acquire equipment, software, supplies, and contractual services (such as Internet connection services) to improve the counties' integration with the TEAM system. The Secretary of State's Office had awarded $550,840 to 150 Texas counties for these purposes as of August 27, 2007; 104 counties had not yet requested any funding, according to the Secretary of State's Office.

Management's Response

As evidenced by the differences observed in TEAM's performance between the November 2007 and the May 2007 elections, the Office believes that the performance improvements initiated by the Office over the last several months have created a dramatic improvement in TEAM. Although the Office has been pleased to see this improvement, the Office continues to work with the vendors and analyze the system to identify processes that can be and should be improved. The Office is actively analyzing performance data to ensure that, under the heavy load that can be expected during a presidential election cycle, TEAM will be ready to do the job it was designed to do.

Chapter 3

The Secretary of State's Office Should Improve Controls Over Access to the TEAM System

Auditors identified weaknesses associated with controls over the TEAM system that increase the risk of unauthorized access to voter data. However, auditors did not identify any instances in which data was inappropriately accessed or modified.

Chapter 3-A

The Secretary of State's Office Does Not Have Adequate Controls Over User Access to the TEAM Application and Database

Specific control weaknesses over user access to the TEAM system increase the risk of unauthorized access to voter data. Specifically:

▪ The Secretary of State's Office delegated the responsibility for setting up county user access accounts to county administrators without properly training the administrators. In addition, the Secretary of State's Office also gave county administrators the ability to delegate their access rights to other users. As a result, some county administrators had granted administrative access rights to the TEAM system to most, if not all, the TEAM system user accounts in their counties. Auditors determined that county administrators granted administrative access to 111 (54 percent) of the 204 county user accounts tested. In 8 (24 percent) of the 33 counties represented in the test sample, county administrators gave administrative access to all TEAM system user accounts in their counties. Administrative access gives users extensive access to the TEAM system and allows users to make widespread changes to a county's voter registration data.

▪ The Secretary of State's Office could not confirm whether any of the TEAM system user accounts in the county voter registration offices and one other user account had been assigned to actual employees. In addition, 9 (4.4 percent) of 204 county user accounts tested appeared to be group accounts and did not have an individual's name attached to them. Auditors also determined that 13 percent of state administrative access accounts were test accounts, and the Secretary of State's Office could not determine whether these accounts were being used. As a result, the Secretary of State's Office would not be able to identify the specific individual who used one of these accounts to make inappropriate changes to TEAM system data. The Secretary of State's Office's account management policy requires that all accounts be uniquely identifiable and use an assigned user name.

▪ The Secretary of State's Office did not have a formal process for reviewing the validity of existing users' accounts or for closing terminated

users' accounts. As a result, auditors determined that four users in two county voter registration offices that auditors visited were not current county employees. Because auditors visited only 11 counties, additional examples of this weakness may exist at the other 243 counties not visited. The Secretary of State's Office's account management policy requires that system administrators or other designated staff have a documented process for periodically reviewing existing accounts for validity.

- Although the Secretary of State's Office collected TEAM access logs, it had not implemented automated tools to allow it to regularly analyze the voluminous data collected. Title 1, Texas Administration Code, Section 202.25, requires that all information resource systems provide the means by which management can audit information system records and establish individual accountability for any action that can potentially allow access to, generation of, modification of, or allow the release of confidential information. Without automated tools to analyze the voluminous audit log data collected and to assist in identifying trends that may indicate security breaches, the Secretary of State's Office may not detect and prevent unauthorized user access or unauthorized changes to TEAM system data.

- The Secretary of State's Office had appropriate controls in place to prevent access to the TEAM database by unauthorized users without direct access to the database. For example, all security-critical default accounts had been disabled. However, auditors determined that certain direct database access and security controls can be improved. To minimize the risk of a security breach, auditors communicated in writing details about these control weaknesses directly to the Secretary of State's Office.

Responses to the survey auditors sent to county voter registration offices underscored these findings. Specifically:

- 26 (13 percent) of the 207 offices that answered the question, "Do multiple users share the same log-in account(s) in the TEAM system?" answered "Yes."

- 35 (17 percent) of the 203 offices that answered the question, "Did everyone who had access to the TEAM system sign an Information Security Acknowledgement and Non-disclosure Agreement (ISANA) form?" answered "No." Another 27 (13 percent) offices stated they did not know of the ISANA form. The Secretary of State's Office's account management policy requires that all users must sign the ISANA form before access is given to the TEAM system. There is a risk that users who do not sign the ISANA form may disclose private, confidential, or high-risk information to unauthorized parties.

Recommendations

The Secretary of State's Office should:

- Require formal access request forms be submitted to the TEAM security administrator for all TEAM users, including county users and contractors.

- Limit the ability of county administrators to delegate TEAM administrator roles to other county users.

- Ensure all users have read and signed the ISANA form.

- Review all existing county, Secretary of State's Office employee, and contractor accounts and remove or modify those accounts that are not appropriately assigned.

- Establish and implement procedures for periodically reviewing existing accounts for validity.

- Remove test user access accounts with administrative access to the TEAM system.

- Develop an automated process for monitoring and analyzing audit log data and develop standards and procedures for regular review of access logs.

Management's Response

Management agrees with these recommendations. The Office's Information Security Officer will work closely with the Office's Elections division to address these recommendations. Specifically, the Office will review its current request forms, make any necessary modifications to these forms and ensure that the proper forms are submitted to the Secretary of State's Office by the counties. The Office will also meet with the vendor and explore the feasibility of installing additional security controls within TEAM, and then associating those controls with the primary role of the end-user. Similarly, the Office will develop processes to monitor county compliance with SOS security policies, including and especially the Information Security Acknowledgment and Non-Disclosure Agreement.

Additionally, the Office will work with the counties and implement procedures so that county accounts can be reviewed for validity and proper authority levels can be ascertained. The Office will also investigate the use of log analysis tools to aid in reviewing access logs.

Finally, the Office of the Secretary of State has developed a process whereby the Office can ascertain what accounts exist, and to whom these accounts have been assigned within the Office and each particular county. The process that has been developed is currently a manual one, and the Office is working

to make this process an automated one. Test user accounts have been eliminated from the TEAM system.

Chapter 3-B

The Secretary of State's Office Has Inadequate Change Management Procedures for the TEAM System

The Secretary of State's Office does not follow a consistent change management process for the TEAM system. Some change requests were made directly by the development staff using e-mails. If no one on the Technical Infrastructure Committee (the members of which are on the change request's e-mail distribution list) questioned the change, then programmers made the change themselves and sometimes communicated completion of the change to the committee using e-mail. These e-mails did not show whether requests were approved or whether changes were tested.

In addition, these changes were not recorded on a change request log as required by Secretary of State's Office policy. Only changes questioned by a member of the Technical Infrastructure Committee are submitted to the Secretary of State's Office's Change Control Board, which is responsible for changes to the TEAM system. The Secretary of State's Office could provide auditors only one change request that had been submitted to its Change Control Board. The Secretary of State's Office could not provide documentation to auditors showing change request approvals, back-out plans, test results, and system documentation updates for any changes, including emergency changes. The Secretary of State's Office's change management policy requires that such documentation be maintained.

System programmers and others applying changes directly to the production environment without testing these changes could cause data corruption, system crashes, and related problems. In addition, the lack of a formal, standardized process for managing changes to the TEAM system increases the risk that unauthorized changes could be made to applications and data without detection.

Recommendations

The Secretary of State's Office should establish and implement formal procedures to ensure that:

- Adequate documentation of decisions related to all change requests, such as prioritization and assignment of responsibilities, is maintained.

- All change requests are submitted using formal change request forms and that all users and approvers provide sign-offs on the forms.

- All emergency changes are logged, reviewed, and approved by management.

- All changes are tested and reviewed before implementation and all test and review documentation is maintained.

- Formal, detailed back-out instructions are drawn up for each change.

- System documentation is updated after every system change.

Management's Response

Management agrees with these recommendations. The SOS Information Technology Director will develop the necessary methodologies, documentation, forms and instructions to ensure that change management procedures are enhanced and that each of these recommendations are satisfied.

Chapter 3-C
Vulnerabilities Exist within the Secretary of State's Office Network

The Secretary of State's Office had secured the TEAM server and Web application from unauthorized access from outside the network. However, the Office had not secured other parts of its network from inappropriate access by individuals inside the Secretary of State's Office.

The TEAM server and Web application were secure.

Auditors reviewed the results of security scans performed by the Department of Information Resources that included the following:

- A penetration test conducted on October 30, 2006, of the servers on which the TEAM system runs. During this test, Department of Information Resources employees attempted to gain access to protected files in the Secretary of State Office's network.

- An application scan conducted on July 19, 2007, of the software on which the TEAM system runs. During this scan, the Department of Information Resources used an automated tool to search for vulnerabilities in the software.

The penetration test and the application scan did not identify any high-severity vulnerabilities that would negatively affect the security of the TEAM system. This means that TEAM servers and software did not have any weaknesses that could be used to easily access the system or take it off-line. However these test results do not provide a guarantee that the TEAM system will remain secure from unauthorized access attempts in the future.

The Secretary of State's Office has not corrected all vulnerabilities identified in a network scan performed by auditors.

As of September 10, 2007, the Secretary of State's Office had addressed only 6 (24 percent) of 25 high-severity vulnerabilities that were identified by a scan of the Secretary of State's Office's network that auditors performed on July 19, 2007. During the scan, auditors used an automated tool to identify the vulnerabilities of the Secretary of State's Office's network that present security risks of unauthorized access from inside the Secretary of State's Office.

The Secretary of State's Office did not have an active intrusion detection system.

The Secretary of State's Office did not have an intrusion detection system at the start of this audit. However, the Secretary of State's Office implemented an intrusion detection system during the scope of this audit. As a result, the Secretary of State's Office can now review access attempt logs, including firewall logs, and identify and address anomalies that could pose security threats to the TEAM system.

Recommendation

The Secretary of State's Office should address all high-severity vulnerabilities identified by the auditors' scan of the Secretary of State's Office's network.

Management's Response

Management agrees with this recommendation and has taken corrective action with respect to the 19 vulnerabilities that were identified as of September 10, 2007, but not corrected as of that date. The corrective action that was taken on these 19 vulnerabilities means that each of the 25 vulnerabilities that were identified by a scan of the Secretary of State's network by the State Auditor's Office on July 19, 2007 has been addressed and remediated.

Chapter 3-D
The Secretary of State's Office Does Not Have a Process in Place to Routinely Verify Data Backups

The Secretary of State's Office has a well established data backup schedule and stores backup media containing critical TEAM system data off site in a secure, environmentally safe, locked facility. However, the Secretary of State's Office does not have a process to routinely verify data backups; such a process is required by the Secretary of State's Office's backup/disaster recovery policy. Without a process to verify data backups, the Secretary of

State's Office may not be aware that an unsuccessful or unreadable backup has been made and would be unable to maintain or quickly resume mission-critical functions in a disaster.

Recommendation

The Secretary of State's Office should establish a process to routinely verify data backups.

Management's Response

Management agrees with this recommendation. The service provider for operational support of the SOS data center environment is the Texas Department of Information Resources (DIR) as per the statewide data consolidation project currently underway. The SOS has been working with DIR to make sure that DIR and its partner in the data consolidation endeavor, the "Team for Texas" (which is a team of vendors headed up by IBM), are performing routine verification of data backups.

Appendices

Objectives, Scope, and Methodology

Objectives

The objectives of this audit were to:

- Determine whether the records in the statewide voter registration database are accurate in accordance with the Help America Vote Act of 2002.

- Assess whether the statewide voter registration system will be available when needed.

- Determine whether the Web-based statewide voter registration system is protected from unauthorized access.

Scope

The scope of this audit included the voter registration component of the Texas Election Administration Management (TEAM) system and the processes and controls at the Secretary of State's Office and county voter registration offices, which coordinated with each other to generate a list of voters who were eligible to vote during the May 12, 2007, special election.

Methodology

The audit methodology included interviewing Secretary of State's Office personnel; interviewing election staff and information technology staff at 11 selected county voter registration offices; reviewing Secretary of State's Office documentation; analyzing TEAM system data and configurations; testing voter registration records for eligibility; reviewing processes, policies, and procedures for determining voter eligibility; and conducting security scans of the Secretary of State's Office network. Auditors also surveyed 254 county voter registration offices regarding the use of the TEAM system as of August 3, 2007.

Information collected and reviewed included the following:

- Secretary of State's Office policies and procedures.

- TEAM voter registration data.

- TEAM user account information, configuration documents, and implementation documents.

- Bureau of Vital Statistics death records through November 30, 2007.

- Department of Criminal Justice report of persons serving felony sentences in May 2007, including those who were incarcerated, serving parole, or on probation.

- Department of Information Resources penetration test summaries and application scan reports.

- Computer systems and networks at selected county voter registration offices.

Procedures and tests conducted included the following:

- Conducted interviews with key staff from the Secretary of State's Office and county voter registration offices regarding the TEAM system.

- Analyzed voter registration data from the TEAM system.

- Tested voting history of registrants who may not have been eligible for the May 12, 2007, special election.

- Analyzed TEAM system data and controls.

- Tested user accounts in the TEAM system for appropriateness.

- Physically inspected the data center and servers that run the TEAM system.

- Scanned the Secretary of State's Office's computer network for security weaknesses.

- Surveyed county voter registration offices.

Criteria used included the following:

- Title 42, United States Code, Section 15301 (Help America Vote Act of 2002).

- Title 1, Texas Election Code, Chapters 11 through 18.

- Title 42, United States Code, Section 1973 (National Voter Registration Act of 1993).

- Title 1, Texas Administrative Code, Chapter 81.

- Title 1, Texas Administrative Code, Chapter 202.

- Secretary of State's Office's contract with IBM for the development of the TEAM system.

- Secretary of State's Office's policies and procedures.

- Department of Information Resources guidelines.

Project Information

Audit fieldwork was conducted from May 2007 through September 2007. This audit was conducted in accordance with generally accepted government auditing standards.

The following members of the State Auditor's staff performed the audit:

- Kels Farmer, CISA (Project Manager)

- Joseph Mungai, CIA, CISA (Assistant Project Manager)

- Hillary Hornberger, CIA

- Alexis Markham

- Robert Pagenkopf

- Stacy Snoe

- Cody Tubbs

- Wei Wang, MSAS, CPA, CIA, CISA

- Rachelle Wood, MBA

- Marlen Kraemer, MBA, CISA (Information System Audit Team)

- Serra Tamur, MPAff, CIA, CISA (Information System Audit Team)

- J. Scott Killingsworth, CIA, CGFM (Quality Control Reviewer)

- Michael C. Apperley, CPA (Assistant State Auditor)

Appendix 2

The U.S. Social Security Administration's Response to the State Auditor's Office's Request for Citizenship Data

Auditors contacted the U.S. Social Security Administration to obtain the United States citizenship status of registered voters in Texas; the U.S. Social Security Administration denied the request. Below is the text of the response that a program analyst in the Center for Program Support at the U.S. Social Security Administration e-mailed to Mr. Kels Farmer (the project manager overseeing this audit) on July 19, 2007:

Mr. Farmer,

The Social Security Administration (SSA) can only disclose personally identifiable information (PII) from its records without the individual's consent to various entities (including state and federal agencies) when there is legal authority via the Privacy Act and SSA disclosure regulates to do so. Your request does not meet the criteria so consent would be required. Additionally, SSA may not have current data on citizenship in all cases since individuals are not required to report back to SSA when citizenship status changes.

I hope this information is helpful.

Center for Program Support

U.S. Social Security Administration

Appendix 3
Texas Voter Registration Application

Figure 1

Texas Voter Registration Application

Appendix 4

County Voter Registration Offices That Maintain Their Own Voter Registration Databases

Table 2 lists the 30 counties that maintain their own voter registration databases and upload new registration records and changes to the Texas Election Administration Management (TEAM) system every 24 hours for verification.

Table 2

County Voter Registration Offices That Have Their Own Voter Registration Databases	
County Voter Registration Office	Number of Registered Voters [a]
Harris County	1,777,312
Dallas County	1,099,797
Bexar County	851,963
Travis County	524,689
Collin County	366,750
El Paso County	363,483
Denton County	318,501
Fort Bend County	258,408
Montgomery County	218,414
Williamson County	198,109
Cameron County	162,679
Jefferson County	145,191
Bell County	140,616
McLennan County	125,972
Smith County	119,777
Webb County	97,577
Wichita County	79,201
Ector County	65,488
Guadalupe County	65,175
Tom Green County	65,108
Kaufman County	53,381
Rockwall County	39,046
Bastrop County	37,459
Kerr County	32,444
Val Verde County	26,885
Fayette County	14,952
Grimes County	13,514
Morris County	8,936

County Voter Registration Offices That Have Their Own Voter Registration Databases	
County Voter Registration Office	Number of Registered Voters [a]
Terry County	7,086
Motley County	905
[a] Reflects status of county voter registration offices and number of voters per county as of May 2007.	

Appendix 5
Survey Instruments and Results

The State Auditor's Office sent surveys to each of the 254 county voter registration offices in Texas asking about their experiences using the Texas Election Administration Management (TEAM) system. Auditors received 209 survey responses on or before August 3, 2007. Some offices elected not to answer all questions. Table 3 summarizes the responses.

Table 3

Survey Responses			
Question	Response	Number of Respondents	Percentage of Respondents [a]
Do you have procedures to identify ineligible voter applicants, such as felons, non-citizens, or voters who submitted duplicate registrations?	Yes	89	43%
	No	96	46%
	Did not answer	24	11%
	Totals	**209**	**100%**
How often, if at all, do you find errors in the registered voter roll obtained from the Secretary of State's Office?	All the time	10	5%
	Often	30	14%
	Sometimes	73	35%
	Rarely	57	27%
	Never	16	8%
	Did not answer	23	11%
	Totals	**209**	**100%**
Do multiple users share the same log-in account(s) in the TEAM system?	Yes	26	12%
	No	181	87%
	Did not answer	2	1%
	Totals	**209**	**100%**
Did everyone who had to access the TEAM system sign an Information Security Acknowledgement and Non-disclosure Agreement (ISANA) form?	Yes	133	64%
	No	35	17%
	Other	35	17%
	Did not answer	6	3%
	Totals	**209**	**100%**
What kind of Internet connection do you use to access the TEAM system?	T1/T3 (Typical Speed: 100mps)	47	22%
	Cable/DSL (Typical Speed: 10mps)	118	56%
	Dial-up (Typical Speed: 56kps)	4	2%
	Other	26	12%
	Did not answer	14	7%
	Totals	**209**	**100%**

Survey Responses			
Question	Response	Number of Respondents	Percentage of Respondents [a]
How often is TEAM available when you need to access the system?	Always	62	30%
	75% of the time or more	102	49%
	50% of the time or more	21	10%
	Less than 50% of the time	4	2%
	Less than 25% of the time	1	0%
	Other	18	9%
	Did not answer	1	0%
	Totals	209	100%
Is your county an online or offline county?	Online	183	88%
	Offline	25	12%
	Did not answer	1	0%
	Totals	209	100%
How quickly, on average, can the TEAM system process an online voter registration?	Less than 1 minute	19	9%
	1-2 minutes	55	26%
	3-5 minutes	45	22%
	6-10 minutes	28	13%
	More than 10 minutes	11	5%
	Other	25	12%
	Did not answer	26	12%
	Totals	209	100%
How quickly, on average, can the TEAM system generate a report?	Less than 1 hour	55	26%
	Less than 8 hours	61	29%
	Less than 24 hours	15	7%
	1-2 days	21	10%
	3-5 days	6	3%
	Other	24	11%
	Did not answer	27	13%
	Totals	209	100%
How satisfied are you with the TEAM system's ability to generate customized reports?	Very satisfied	6	3%
	Somewhat satisfied	37	18%
	Neutral	41	20%
	Not very satisfied	61	29%
	Very unsatisfied	33	16%
	Did not answer	31	15%
	Total	209	100%
Does the TEAM system process offline batch transactions in a timely manner?	Always	9	4%
	Often	12	6%
	Sometimes	4	2%

Survey Responses			
Question	Response	Number of Respondents	Percentage of Respondents [a]
	Rarely	2	1%
	Never	1	1%
	Did not answer	181	87%
	Totals	**209**	**100%**
How quickly, on average, does the TEAM system process "send/receive" batched voter registration files?	Less than 1 minute	3	1%
	1-2 minutes	10	5%
	3-5 minutes	7	3%
	6-10 minutes	2	1%
	More than 10 minutes	0	0%
	Other	5	2%
	Did not answer	182	87%
	Totals	**209**	**100%**
How quickly, on average, can the TEAM system process a search for a voter?	Less than a minute	49	23%
	1-2 minutes	74	35%
	3-5 minutes	35	17%
	6-10 minutes	9	4%
	More than 10 minutes	2	1%
	Other	25	12%
	Did not answer	15	7%
	Totals	**209**	**100%**
How satisfied are you with the TEAM Help Desk Support?	Very satisfied	81	40%
	Somewhat satisfied	61	30%
	Neutral	27	13%
	Not very satisfied	19	9%
	Very unsatisfied	6	3%
	Do not use Help Desk Support	10	5%
	Did not answer	5	2%
	Totals	**204**	**100%**
Did you receive training from the Secretary of State's Office on the Team system?	Yes	194	93%
	No	15	7%
	Did not answer	0	0%
	Totals	**209**	**100%**
(If received training) To what extent did you find the training helpful?	To a great extent	23	12%
	To a good extent	68	35%
	To some extent	73	38%
	To a small extent	30	15%
	Not helpful at all	0	0%

Survey Responses			
Question	Response	Number of Respondents	Percentage of Respondents [a]
	Did not answer	15	8%
	Totals	**194**	**100%**
In general, does the TEAM system allow you to do your job effectively?	Yes	98	47%
	No	106	51%
	Did not answer	5	2%
	Totals	**209**	**100%**

[a] Percentages calculated in this table include offices that did not answer each question.

In addition, auditors asked county voter registration offices to list the most common problems they have encountered using the TEAM system, if any. Respondents could state up to five problems in response to this question. Auditors grouped similar responses, and the ten most common responses are listed in Table 4.

Table 4

Most Common Problems with the TEAM System Cited by County Voter Registration Offices	
Problem	Number of Respondents Citing Problem
The TEAM system is slow when processing new applications, setting up elections, generating reports, and generating voter rolls.	84
The TEAM system requires too many steps to do one task.	73
County voter registration staff have experienced difficulty running reports.	58
The street index—a feature of the TEAM system that assigns voting districts based on a voter's address—is complex, confusing, difficult, and time-consuming to edit.	56
The TEAM system times out often and will log users out.	41
The TEAM system is too difficult to use and not user-friendly. The previous voter registration system—Texas Voter Registration System (TVRS)—performed better and quicker.	41
County voter registration staff have experienced printing problems, such as the printer alignment not being correct and the system being unable to print three voter cards on one page (which the TEAM system was designed to do).	35
County voter registration staff could not get voter lists when needed (and did not want to set up an election to get them).	32
County voter registration staff need more training on the TEAM system; the manual provided by the Secretary of State's Office should be updated with more detailed, step-by-step instructions.	22
County voter registration staff experienced difficulty batching; the "create batch" button did not work.	20

Appendix 6

Secretary of State's Office's Attachment to Management Responses

The Secretary of State's Office provided this information as an attachment to its responses, which has not been subjected to any audit procedures.

Attachment A

The State of Texas

Phil Wilson
Secretary of State

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As part of the Validation Activity, the TEAM Benchmark from December 2006 was rerun in order to document and compare the impact of the 6 months of tuning efforts. The follow summary shows the results for the original TEAM November 2006 benchmark (TEAM A and TEAM B), and the August 2007 (TEAM07) benchmark. In all cases, performance has significantly improved from the November 2006 Benchmark:

Test ID	Statistic	TEAM A	TEAM B	TEAM07	Faster by x
3.1.3	count	20	20	20	
ADD	average	11.30	9.17	1.97	4.7
	stdev	7.59	6.20	0.84	
	confidence	3.33	2.72	0.37	
	maximum	25.39	18.35	3.88	4.7
	minimum	1.96	1.60	1.39	1.2
	correl				
	rec / sec				
3.2.2	count	13	12	14	
CANCEL	average	5.83	4.79	1.83	2.6
	stdev	0.32	0.35	0.15	
	confidence	0.17	0.20	0.08	
	maximum	6.33	5.35	2.29	2.3
	minimum	5.08	4.28	1.66	2.6
	correl				
	rec / sec				
3.3.1	count	14	15	14	
EDIT	average	7.93	4.17	1.91	2.2
	stdev	4.88	1.26	0.38	
	confidence	2.56	0.64	0.20	
	maximum	19.53	6.54	2.57	2.5
	minimum	4.09	2.19	1.50	1.5
	correl				
	rec / sec				
3.4.1	count	18	10	10	
NAME	average	47.73	8.66	1.37	6.3
	stdev	130.66	12.77	0.20	
	confidence	60.36	7.92	0.12	

Test ID	Statistic				
	maximum	541.74	43.99	1.86	23.6
	minimum	1.54	1.81	1.21	1.5
	correl	0.25	0.91	0.95	
	rec / sec	1.43	2.61	15.94	
3.4.2	count	22	10	10	
VUID	average	2.76	2.39	1.26	1.9
	stdev	0.71	0.20	0.12	
	confidence	0.30	0.12	0.07	
	maximum	4.99	2.69	1.56	1.7
	minimum	1.45	2.08	1.14	1.8
	correl				
	rec / sec				
3.4.3	count	19	13	13	
DOB	average	2.56	76.57	1.47	52.0
	stdev	1.15	187.07	0.17	
	confidence	0.52	101.69	0.09	
	maximum	5.01	692.87	1.80	385.4
	minimum	1.33	2.13	1.27	1.7
	correl				
	rec / sec				

Test ID	Statistic	TEAM A	TEAM B		
3.4.4	count	10	10	10	
ADDR	average	2.94	12.85	1.54	8.4
	stdev	2.00	16.67	0.34	
	confidence	1.24	10.33	0.21	
	maximum	7.18	58.06	2.20	26.4
	minimum	1.38	0.74	1.13	0.7
	correl	0.96	0.59	0.95	
	rec / sec	8.00	4.38	33.52	
3.4.6	count	10	9	9	
TDL	average	2.16	2.25	1.31	1.7
	stdev	0.61	0.24	0.04	
	confidence	0.38	0.16	0.03	
	maximum	2.94	2.81	1.37	2.1
	minimum	1.38	2.04	1.26	1.6
	correl				
	rec / sec				

2

Copies of this report have been distributed to the following:

Legislative Audit Committee

The Honorable David Dewhurst, Lieutenant Governor, Joint Chair
The Honorable Tom Craddick, Speaker of the House, Joint Chair
The Honorable Steve Ogden, Senate Finance Committee
The Honorable Thomas "Tommy" Williams, Member, Texas Senate
The Honorable Warren Chisum, House Appropriations Committee
The Honorable Jim Keffer, House Ways and Means Committee

Office of the Governor

The Honorable Rick Perry, Governor

Secretary of State

The Honorable Phil Wilson